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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,965	07/15/2003	Jay A. Vorndran	AMCOR-003	9700

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EXAMINER	
WYSZOMIERSKI, GEORGE P	
ART UNIT	**PAPER NUMBER**
1742	

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/620,965	VORNDRAN, JAY A.	
	Examiner	Art Unit	
	George P. Wyszomierski	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *14-20* is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☒ Claim(s) *13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6, 8, 9, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Heinz et al. (U.S. patent 3,917,125).

Heinz discloses making a basket-shape container having a mesh screen **16** on its lower surface, and inserting the container into a melt so that flux from the melt solidifies in the pores of the screen. See Heinz column 2, line 37 to column 3, line 5. With respect to claims 6 and 8, the screen material of Heinz is held to be "refractory" and "heat insulating" in the absence of any numerical definition of these terms. Thus, all aspects of the claimed invention are held to be fully met by Heinz et al.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2-5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinz et al.

The structure of Heinz including the flux material in the pores as described in item no. 2 supra is lowered into a melt composition. While Heinz never states the term "metal", it is a reasonable assumption that the Heinz process is directed to molten metal, given the temperatures involved. At some point during this step of the Heinz process, only the flux material adjacent to the opening would be exposed to the molten material. With respect to instant claim 12, exposing the Heinz material to the molten metal for a time as recited in the instant claim would fall within the purview of the Heinz process. Thus, the disclosure of Heinz et al. is held to create a prima facie case of obviousness of the presently claimed invention.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heinz et al., as above, in view of Potier et al. (U.S. Patent 4,040,469) or Shima (U.S. Patent 4,430,121).

The Heinz process uses platinum for making the screen **16**, as opposed to the ceramic material as required by the instant claim. The examiner's position is that it was well-known in the art, at the time of the invention, to utilize ceramic materials for portions of an apparatus that are to be in contact with molten metal, as evidenced by Potier (see column 1, lines 53-63) or Shima (see column 4, lines 16-55). The use of these compositions results in improved properties in the metal produced from such a system. Thus, the disclosures of Potier et al. or Shima would have motivated one of ordinary skill in the art to substitute a ceramic material for the platinum screen material used in the Heinz et al. process.

6. In a response filed December 28, 2005, Applicant alleges that the Heinz method does not involve a shell made from fibrous refractory material as required by the instant claims, that no evidence of record would indicate that the Heinz method requires molten metal, and/or that the substitution of ceramic materials as discussed in item no. 5 supra in the Heinz process would render the Heinz reference inoperable for its intended purpose. Applicant's arguments have been carefully considered but are not persuasive of patentability because:

a) With regard to fibrous material, the Heinz structure includes a porous material such as a fine platinum mesh screen. Any difference between this and the claimed "fibrous refractory material" would appear to be one of semantics and not of any actual physical difference between the devices used by Heinz and those within the limits of the present claims. Further, it is noted that the instant claims are to a process and not an apparatus, and such claims must be distinguishable from prior art processes by means of their process steps and not by the apparatus used in the respective processes.

b) While the Heinz patent does not refer to molten metal, the Heinz process operates at temperatures such as 800-1200.deg.C, i.e. at typical molten metal processing temperatures. It is thus a reasonable assumption that the material being processed by Heinz is in fact metal because few other substances could be processed at such a temperature. The issue is not one of inherency; the examiner does not assert that the Heinz material must be metal, but rather that it would appear to one of skill in the art reading the Heinz disclosure that Heinz is processing molten metal.

c) Applicant's allegations with respect to the substitution of materials in the Potier or Shima references versus the materials of Heinz are made by way of argument alone, and include no data or other probative evidence in support of such allegations.

7. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and claims 14-20 are allowable over the prior art of record. The prior art does not disclose or suggest pouring a fluxing material downward through an opening at the top end of the shell as required by claim 13. Further, the prior art does not disclose or suggest inserting the fluxing material by pouring it through a single opening as required by claims 14-20.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. All patent application related correspondence transmitted by facsimile must be directed to the new central facsimile number, (571)-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1700

GPW
March 9, 2006